import java.util.ArrayList;  
import java.util.Scanner;  
  
class Contact {  
 String name;  
 String phoneNumber;  
 String email;  
  
 public Contact(String name, String phoneNumber, String email) {  
 this.name = name;  
 this.phoneNumber = phoneNumber;  
 this.email = email;  
 }  
}  
  
public class Main {  
 static ArrayList<Contact> *contacts* = new ArrayList<>();  
  
 public static void main(String[] args) {  
 Scanner scanner = new Scanner(System.*in*);  
 int choice;  
  
 do {  
 System.*out*.println("\nContact Management System");  
 System.*out*.println("1. Add Contact");  
 System.*out*.println("2. View Contacts");  
 System.*out*.println("3. Update Contact");  
 System.*out*.println("4. Delete Contact");  
 System.*out*.println("5. Exit");  
 System.*out*.print("Enter your choice: ");  
 choice = scanner.nextInt();  
  
 switch (choice) {  
 case 1:  
 *addContact*();  
 break;  
 case 2:  
 *viewContacts*();  
 break;  
 case 3:  
 *updateContact*();  
 break;  
 case 4:  
 *deleteContact*();  
 break;  
 case 5:  
 System.*out*.println("Exiting...");  
 break;  
 default:  
 System.*out*.println("Invalid choice. Please try again.");  
 }  
 } while (choice != 5);  
 }  
  
 private static void addContact() {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.print("Enter name: ");  
 String name = scanner.nextLine();  
 System.*out*.print("Enter phone number: ");  
 String phoneNumber = scanner.nextLine();  
 System.*out*.print("Enter email address: ");  
 String email = scanner.nextLine();  
 *contacts*.add(new Contact(name, phoneNumber, email));  
 System.*out*.println("Contact added successfully.");  
 }  
  
 private static void viewContacts() {  
 if (*contacts*.isEmpty()) {  
 System.*out*.println("No contacts found.");  
 } else {  
 System.*out*.println("\nContacts:");  
 for (int i = 0; i < *contacts*.size(); i++) {  
 Contact contact = *contacts*.get(i);  
 System.*out*.println((i + 1) + ". " + contact.name + " - " + contact.phoneNumber + " - " + contact.email);  
 }  
 }  
 }  
  
 private static void updateContact() {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.print("Enter the index of the contact to update: ");  
 int index = scanner.nextInt();  
 if (index >= 0 && index < *contacts*.size()) {  
 Contact contact = *contacts*.get(index);  
 System.*out*.print("Enter new name: ");  
 String name = scanner.nextLine();  
 System.*out*.print("Enter new phone number: ");  
 String phoneNumber = scanner.nextLine();  
 System.*out*.print("Enter new email address: ");  
 String email = scanner.nextLine();  
 contact.name = name;  
 contact.phoneNumber = phoneNumber;  
 contact.email = email;  
 System.*out*.println("Contact updated successfully.");  
 } else {  
 System.*out*.println("Invalid index.");  
 }  
 }  
  
 private static void deleteContact() {  
 Scanner scanner = new Scanner(System.*in*);  
 System.*out*.print("Enter the index of the contact to delete: ");  
 int index = scanner.nextInt();  
 if (index >= 0 && index < *contacts*.size()) {  
 *contacts*.remove(index);  
 System.*out*.println("Contact deleted successfully.");  
 } else {  
 System.*out*.println("Invalid index.");  
 }  
 }  
}